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AUTHOR	Stephens, Liz C.; Mandeville, Thomas; Matthew, Kathryn
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ABSTRACT

This paper describes the implementation and assessment of a unique model of professional development for teacher educators. Southwest Texas State University's (SWT's) College of Education graduates and certifies more teachers than any other institution in the state; SWT has had a professional development school since 1991. The View and Doing Technology (VDT) Project was designed by faculty in part to ensure that field-based preservice teachers observed competent to exemplary uses of technology in the delivery of instruction. In order to provide professional development to faculty in a convenient and non-threatening manner, a professional development model was established that relied wholly on the technological knowledge and/or talent that several members of the faculty had, rather than on what deficiencies were evident. The general purpose of the VDT Project was to establish a series of professional development demonstration workshops set in a supportive community of learners. The specific aim of the VDT Project was to situate field-based teacher educators, who teach secondary preservice teachers, in a learning environment in which participants demonstrate skillful teaching with technology and ultimately provide preservice teachers with rich opportunities for visualizing and integrating technology in their teaching. This study of the project examined to what extent the VDT Project's faculty-teaching-faculty model inspired a technology rich learning environment for preservice teachers. (Contains 10 references.) (AEF)

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Faculty-Teaching-Faculty-A Model for Encouraging Teacher Educators to Integrate Technology in Instruction

Liz C. Stephens, Ed.D.
Southwest Texas State University

Thomas Mandeville, Ph.D.
Southwest Texas State University

Kathyrn Matthew, Ed.D.
Louisiana Technological University

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In order model skillful integration of technology in instruction, teacher educators need to become proficient users of technology. This paper describes our implementation and assessment of a unique model for professional development for teacher educators. The model is unique in that it focused on strengths rather than on deficiencies. It is also unique in that it was implemented at a professional development school that has been recognized as one of the largest and most effective teacher preparation programs in the nation.

Background

Southwest Texas State University's (SWT) College of Education graduates and certifies more teachers than any other institution in the state. SWT has had a professional development school since 1991, when it established a partnership with area school districts in an effort to restructure teacher education. The consortium, named the SWT Center for Professional Development and Technology (CPDT), was recognized nationally in 1998 and in 1999 for its outstanding teacher preparation program. Each academic year, approximately 1,000 preservice teachers attend field-based education classes in 20 public school campuses within seven school districts. Despite the success of the program and the accolades that it has received, however, the "T" in CPDT has faded over time. In the last six years, technology has not been a key component of the teacher education program. One reason that this may have occurred was that there had not been structured opportunities for continuing development of technology proficiency. Another reason may be that faculty members may not have embraced technology as a teaching/learning tool and therefore did not integrate it.

To restore the emphasis on technology, the Viewing and Doing Technology (VDT) Project was designed by faculty and funded through a 1999-2000 Capacity Building grant from the U.S. Department of Education's Preparing Tomorrow's Teachers To Use Technology Program. One of the primary goals of the VDT Project was to ensure that field-based preservice teachers observed competent to exemplary uses of technology in the delivery of instruction. To begin to do this, teacher educators needed to experience technology as a teaching/learning tool, and they needed structured opportunities for doing

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this. Such opportunities needed to fit into the busy schedule of teacher educators. More importantly, the opportunities needed to value the skills and talents of teacher educators as well motivate them to participate.

In order to provide professional development to faculty in a convenient and non-threatening manner, we established a professional development model that relied wholly on the technological knowledge and/or talent that several members of the faculty had rather than on what deficiencies were evident. In other words, outside trainers were not used to provide workshops that would theoretically fill the gaps of knowledge/skill that could have been identified and listed. The approach was adapted from the teachers-teaching-teachers model used by the National Writing Project for the professional development of K-college teachers of writing (see Gray, 2001). The VDT Project organizers applied the faculty-teaching-faculty model and asked ten teacher educators-those who were responsible for secondary-level teacher certification and who were assigned to five different field-based sites. Members of the target group were asked what they considered their strengths in technology and then were invited to conduct a 4-5 hour demonstration workshop on their area of expertise for peers. Over the nine-month academic year, six workshops were conducted by and for this group of ten.

Review of Literature

Studies in teacher education journals describe perspectives on professional development of teacher educators. Those that address the growth of these professionals in the area of use of technology in instruction and that informed the vision for a faculty-teaching-faculty model are addressed here. They are categorized as (1) need for professional development, (2) elements of effective professional development, and (3) community of learners.

Need for professional development. Integrating technology into teacher preparation classes throughout the teacher preparation program assures that preservice teachers experience how technology can be woven into daily classroom activities (Halpin, 1999). This modeling of technology integration provides a foundation for students as they develop the skills and confidence to use technology in their own classrooms. This requires that teacher preparation faculty know how to use technology to enhance their own teaching. However, teacher preparation faculties oftentimes do not receive the professional development, hardware, software, specialized support, released time, and recognition to develop the technological skills needed to infuse technology into their teaching.

Elements of effective professional development. In order for teacher educators to enhance their teaching with technology, they need professional development opportunities to experience it as a teaching/learning tool. Effective technology staff development requires, among other things, immersion in learning over extended periods of time, active involvement, a community of learners, a focus on the learners' needs, and time for reflection (McKenzie, 1991). Additionally, effective professional development focuses on how to use technology to improve teaching and learning (Cottrell, 1999). The

workshop facilitators must take into consideration the concerns and feelings of the participants (Linnell, 1994). Using the cognitive apprenticeship approach in professional development assures that instruction is relevant, focuses on authentic problems, and provides ongoing support after the workshops (Ritchie & Wiburg, 1994). Just-in-time instructional support. Just-in-time (JIT) direct instruction is one means of providing ongoing support. JIT is assistance that is provided when it is needed, is specific to the learners' needs, and is usually under the learners' control (Willis, Stephens, & Matthew, 1996). Further, JIT direct instruction teaches the learners a basic skill needed to solve a current problem and enables them to move beyond an impasse. This personal support for learners is crucial for faculty members as they learn to use technology.

Community of learners. Learning to use technology and to integrate it into the curriculum in meaningful ways requires ongoing support from a connected community of learners who use technology. A community of learners provides not only the resources and technical support required to use technology but also the confidence to teach with technology (Ginns, McRobbie, & Stein, 1999; Hruskocy et al., 2000.) Tom Carroll's, Preparing Tomorrow's Teachers to Use Technology (PT3) Program Director at the U. S. Department of Education, vision for teacher professional development includes intergenerational collaborative learning between teachers and students whereby they learn from one another (Sanford, 2000).

Purpose of the Study

The general purpose of the VDT Project at SWT was to establish a series of professional development demonstration workshops set in a supportive community of learners. The specific aim of the VDT Project was to situate field-based teacher educators, who teach secondary preservice teachers, in a learning environment in which participants demonstrate skillful teaching with technology and ultimately provide preservice teachers with rich opportunities for visualizing and integrating technology in their teaching. This study of the project examined to what extent the VDT Project's faculty-teaching-faculty model inspired a technology rich learning environment for preservice teachers.

Data Sources/Evidence

The ten university professors/instructors described earlier attended six planned demonstration workshops, each designed and conducted by one of the ten in the target group. Three were conducted in the fall semester, and three in the spring. The presenter was asked to share knowledge and skill in the area he/she has expertise, and all participants were paid a $1,000 stipend for attending the demonstration workshop series. Workshops addressed the following topics: developing online course materials, creating WebQuests, peer editing with word processing software, developing video cases, creating multimedia course materials, and photo editing. The demonstration workshops were held in a computer lab, and more than half of the time was dedicated to hands-on application. Most demonstration workshops included time for sharing and reflecting; besides showing products created during the hands-on portion of the workshop, participants engaged in dialogue that explored methods of integrating what was learned into field-based courses.

Data was collected through pre/posttests, questionnaires, interviews, and observations. Results of the data analysis indicated that by the end of the academic year, faculty had gained knowledge in the use of computer programs and increased their use of technology in their teaching. Responses to a survey questionnaire indicated that most participants rated the series of workshops as "excellent"-reasons for the rating ranged from an appreciation for the relaxed approach to a recognition of the knowledge gained through the act of preparing a workshop for peers. Another indicator of the success of this project is that in the following academic year, after the VDT Project's funds were depleted, faculty members continued their collaboration through planned open workshops designed to help further develop their technological expertise. Following are some of the outcomes recorded:

* Before the Putting Your Course On-Line workshop, one of five field-based sites had a website; after the workshop, four of five sites had a website.
*Before the Doing a WebQuest workshop, one of five field-based sites incorporated a WebQuest project in the syllabus; to date, three of five sites have done so.
*Before the Putting Forms Online workshop, no field-based sites incorporated the use of online forms; to date, two members of the group have included online forms for their graduate level classes and one has created an online form for a professional organization. However, online forms are not linked to any of the four field-based sites' web pages yet.
*During the Using Videocase Methodology workshop, participants received a copy of A Classroom View, a CD-ROM designed for professional development of teachers; it focuses on videocases of local classroom teachers who use technology in their instruction. Two sites' instructional teams used the CD-ROM and reported a positive response.

Conclusions

The VDT Project designers felt that transfer of new knowledge was the most critical outcome of the faculty-teaching-faculty model of professional development. Consequently, questions on an emailed questionnaire attempted to elicit comments that would point to the degree of transferability of new knowledge/skills. Seven of the nine who received the questionnaire returned it. Although all respondents described the model as "excellent" or "very good", two felt that their transfer of new knowledge/skills to real classroom settings was weak. This expressed concern about application of new knowledge/skills conflicted with the data showing strong evidence that techniques learned during the workshops were implemented in several field-based teacher education settings. Moreover, members of the faculty who participated in dialogue during the demonstration workshops noted that they relied more on each other to seek advice, information, or technical help than they had prior to the experience. Also, they requested a continuation of the workshops beyond the life of the grant that sustained it.
The conflict between perception and data called for a closer examination of the model. The perception that there was a lack of transferability may be related to a lack of time available to practice new skills more frequently or to explore these new skills in more depth. Another reason for the perception may be the lack of opportunity to convene to share successes and failures once new knowledge/skills were transferred to a classroom

setting. Finally, the lack of equipment in most of the field-based sites would make transference of some new skills and techniques virtually impossible.

Educational Importance of the Study

The faculty-teaching-faculty model can be an effective method of developing the talents of teacher educators. Our VDT Project showed that a community of learners was established through the organization of time and the participant-organized structure for demonstration workshops. Research studies suggest that such a community provides the resources and technical support required to use technology as well as the confidence to teach with technology (Ginns, McRobbie, & Stein, 1999; Hruskocy et al., 2000). Based on the data and outcomes, there is no question that the community established through VDT Project's model provided resources and technical support. How much support is needed within a community of learners, however, to ensure that all participants of the community transfer the new knowledge and feel confident to teach with technology? How is that support defined or codified? Our College of Education was awarded a much larger grant that will afford replication of the model created during the 1999-2000 VDT Project. We are critically re-examining the current data in order to refine the faculty-teaching-faculty model. Our target group for 2001-2002 is the 30 teacher educators who prepare some 500 elementary school teachers a year. Evaluators from the Southwest Educational Development Laboratory in Austin, Texas will assist us in the collection of new data.

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